INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 2004/000391

	FC1/11 2	.004/000331				
A. CLASSIFICATION OF SUBJECT MATTER						
IPC7: G01S 5/02, G05D 1/02 According to International Patent Classification (IPC) or to both national classification and IPC						
B. FIELDS SEARCHED						
Minimum documentation searched (classification system followed b	y classification symbols)					
IPC7: E21F, G01S, G05D						
Documentation searched other than minimum documentation to the	e extent that such documents are inclu	ided in the fields searched				
SE,DK,FI,NO classes as above						
Electronic data base consulted during the international search (nam	e of data base and, where practicable,	search terms used)				
EPO-INTERNAL, WPI, PAJ						
C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category* Citation of document, with indication, where ap	ory* Citation of document, with indication, where appropriate, of the relevant passages					
	EP 1243939 A1 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.), 25 Sept 2002 (25.09.2002), abstract					
	WO 0169041 A1 (SANDVIK TAMROCK OY), 20 Sept 2001 (20.09.2001), figure 4, abstract					
	WO 0107976 A1 (CMTE DEVELOPMENT LTD.), 1 February 2001 (01.02.2001), abstract					
	WO 03012470 A2 (SIEMENS AKTIENGESELLSCHAFT), 13 February 2003 (13.02.2003), abstract					
		}				
	· · · · · · · · · · · · · · · · · · ·					
Y Further documents are listed in the continuation of Box C. X See patent family annex.						
Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance.	"A" document defining the general state of the art which is not considered date and not in conflict with the application but cited to understand					
to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is "L" document which may throw doubts on priority claim(s) or which is						
cited to establish the publication date of another citation or other special reason (as specified) "O" document of particular relevance: the claimed invention canno considered to involve an inventive step when the document is combined with one or more other such documents, such combined with one or more other such documents, such combined with one or more other such documents, such combined with one or more other such documents.						
"P" document published prior to the international filing date but later than the priority date claimed	being obvious to a person skilled in the art "&" document member of the same patent family					
Date of the actual completion of the international search	Date of mailing of the international search report					
26 October 2004	2 9 -10- 2004					
Name and mailing address of the ISA/ Authorized officer						
Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Göran Magnusson /itw						
Facsimile No. +46 8 666 02 86	· · · · · · · · · · · · · · · · ·					

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 2004/000391

		PCI/FI 2004	7 000331
C (Continu	nation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the rele	Relevant to claim N	
A	WO 02054813 A1 (EKAHAU OY), 11 July 2002 (11.07.2002), abstract		1-11
	_ 		
A	US 6226572 B1 (M.TOJIMA ET AL), 1 May 2001 (01.05.2001), abstract		1-11
			•
	•		
			·
			•
	·		

INTERNATIONAL SEARCH REPORT

Information on patent family members

01/10/2004

International application No. PCT/FI 2004/000391

			· ·				
EP	1243939	A1	25/09/2002	NON	NE .		
WO	0169041	A1	20/09/2001	UA	4659901		24/09/2001
				CA	2403124	Α	20/09/2001
				EP			18/12/2002
				FI	110806		00/00/0000
				FI	20000628		18/09/2001
				JP	2003527514	Ţ	16/09/2003
				US	6616244		09/09/2003
				US	20030052529	À	20/03/2003
				ZA	200207057	A 	02/05/2003
WO	0107976	A1	01/02/2001	AP	200202400	D	00/00/0000
				AU	5954400	Α	13/02/2001
				AU	PQ181699	D	00/00/0000
				BR	0013057	A	23/07/2002
				CA	2380048	A	01/02/2001
				CN	1367886	T	04/09/2002
				EP	1204905	A	15/05/2002
				NZ	516833	A	31/05/2002
				PL	356260	Ā	28/06/2004
				US	6694233	В	17/02/2004
				ZA	200200569	A 	22/04/2003
WO	03012470	A2	13/02/2003	US	20030028323	A	06/02/2003
 WO	02054813	A1	11/07/2002	CN	1483297	т Т	17/03/2004
		•••	, -, ,	EP	1354491	À	22/10/2003
				FI	111901	B	00/00/0000
				FI	20002891	Ā	30/06/2002
•				JP	2004517572	T	10/06/2004
				US	20040072577	A	15/04/2004
US	6226572	B1	01/05/2001	AU	5879098	A	08/09/1998
				JP		A	. 21/08/1998
				WO	9836337	Α	20/08/1998

Form PCT/ISA/210 (patent family annex) (January 2004)